



[10191/538]

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:

:Examiner:LouisJacques

Marko MASCHEK et al.

For: PROCESS FOR GENERATING

COLLISION SIGNALS

Filed: November 4, 1997

Serial No.: 08/963,720

: Art Unit: 366

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Assistant Commissioner for Patents Washington, D.C. 20231

APPEAL BRIEF PURSUANT TO 37 C.F.R. § 1.192(a)

SIR:

On April 24, 2000, Appellants filed a Notice of Appeal from the final rejection of claims 1-3 contained in the Final Office Action issued by the U.S. Patent and Trademark Office on October 22, 1999, in the above-identified patent application.

In accordance with 37 C.F.R. § 1.192(a), this brief is submitted in triplicate in support of the appeal of the final rejection of claims 1-3. For the reasons set forth below, the final rejection of claims 1-3 should be reversed.

1. REAL PARTY IN INTEREST

The real party in interest in the present appeal is Robert Bosch GmbH, Stuttgart, Federal Republic of Germany. Robert Bosch GmbH is the assignee of the entire right, title, and interest in the above-identified application.

Atty's Signature

I hereby certify that this correspondence is being deposited with the United Status Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, n

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2. RELATED APPEALS AND INTERFERENCES

There are no interferences or other appeals related to the above-identified application.

3. STATUS OF CLAIMS

Claims 1-3 stand finally rejected under 35 U.S.C. § 112, $\P 2$, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellants regard as the invention.

Claims 1-3 stand finally rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,345,402 to Gioutsos et al. ("Gioutsos").

Claims 4-6 have been objected to as being dependent on a rejected base claim, but were indicated as being allowable if rewritten in independent form.

A copy of the claims on appeal is attached hereto in the Appendix. Since claims 4-6 are not on appeal, only claims 1-3 have been reproduced in the Appendix.

4. STATUS OF AMENDMENTS

In response to the Final Office Action that issued on October 22, 1999, Appellants filed a Response After Final Office Action ("the Response") dated January 24, 2000. No amendments to the claims have been filed after the October 22 date of the Final Office Action.

In an Advisory Office Action dated February 16, 2000, the Examiner stated that the Response did not place the application in condition for allowance.

5. SUMMARY OF THE INVENTION

The present invention is directed to a process that will make it possible to generate a plurality of new collision signals representing a wide variety of collision situations with minimal use of computing capacity. (Specification at page 2, lines 4-6). According to the present invention, a core signal is

derived by low-pass filtering from a collision signal actually measured. (Specification at page 2, lines 8-9). The core signal is split into several chronologically sequential signal segments, each signal segment is simulated by a transmission function and all the resulting transmission functions are then combined into an overall transmission function. (Specification at page 2, lines 9-12). One or more collision signals are formed by varying at least one parameter of the overall transmission function. (Specification at page 2, lines 12-13). The process according to the present invention needs only a single collision signal actually measured to derive a plurality of modified collision signals using a particular mathematical method. (Specification at page 2, lines 13-15).

6. ISSUES

- 1. Under 35 U.S.C. § 112, $\P 2$, are claims 1-3 indefinite?
- 2. Under 35 U.S.C. § 102(b), are claims 1-3 anticipated by Gioutsos?

7. GROUPING OF CLAIMS

Group 1 - Claims 1-3 stand or fall together.

8. ARGUMENT

Claim 1 stands rejected under 35 U.S.C. § 112, ¶2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellants regard as the invention. In pointing out the supposed deficiencies of this claim, the Examiner makes two points. First, the Examiner asserts that "it is not clear whether the `simulated signal segments' are being combined or whether they become inputs to the overall transmission function." Next, the Examiner asserts that the "step of `simulating...' becomes `useless' since the result of the simulating step does not affect the steps

of `combining ` and `forming'. Final Office Action at page 2. In responding to this rejection, Appellants emphasized that when read in light of the specification, the claim language noted in the Examiner's rejection would have been understood by one of ordinary skill in the art. Although the Examiner acknowledges that the clarity of claims are indeed to be examined in light of the specification, the Examiner remains unpersuaded that the claims in this case are definite under 35 U.S.C. § 112, \P 2. Appellants offer the following additional discussion to demonstrate that these claims would be readily understandable when read in light of the specification by one skilled in the art. In particular, Appellants submit that the subject matter relating to Figure 2 provides an adequate basis for concluding that the claims are definite in view of the specification. With respect to the term "transmission function", this is not a device having an input and output, but rather a mathematical description of a signal pattern, as is sufficiently known to one skilled in the art of signal processing. As such, to speak of these abstract functions as having physical "inputs" as suggested by the Examiner is, respectfully, a mischaracterization of the present invention as recited in the claims. Moreover, it is also a misapprehension of the true nature of the term "transmission function"to characterize the recited signal segments as elements that may somehow be physically "fed' into an "overall transmission function". Instead, the total transmission function meant by this is produced by simply adding partial transmission functions of the individual signal elements. A person of ordinary skill in the art reading the specification would realize how the crash signals are generated synthetically. Therefore, with all due respect, the lack of clarity that the Examiner sees in the claims is due not to the actual language of the claims, but to the manner in which the Examiner has chosen to describe the concepts expressed by the claim language. When these "transmission functions" are viewed

as they are intended by the specification to be viewed, that is, as mathematical functions to which the physical acts of "feeding" signals thereto and possessing "inputs" and "outputs" have no relevance, it is respectfully submitted that the claims can be viewed as complying completely with 35 U.S.C. § 112, ¶2. Therefore, in view of this discussion, Appellants respectfully submit withdrawal of the rejection under 35 U.S.C. § 112, ¶2.

Claims 1-3 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,345,402 to Gioutsos et al. ("Gioutsos"). Appellants submit that none of claims 1-3 is anticipated by Gioutsos. case of Gioutsos, various synthetic crash signals are generated by multiplying a crash signal having different wave shapes, produced by a "white noise generator". Unlike the invention of claim 1, Gioutsos does not show an actual crash signal that is split up into a plurality of <u>successive signal segments</u>. In Gioutsos, it is certainly not the case that the individual signal segments are simulated by transmission functions, which, in the final analysis, are recombined to form a total transmission function, so that by changing the parameters of the total transmission function, new crash signals can be generated. Therefore, because of these deficiencies in Gioutsos, Appellants respectfully request withdrawal of the rejection of claims 1-3 under 35 U.S.C. § 102(b).

9. <u>CONCLUSION</u>

Reversal of the Examiner's rejections of claims 1-3 is therefore respectfully requested.

Respectfully submitted,

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Dated: 9/25/00

By: Mond Man Richard L. Mayer Reg. No. 22,490

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APPENDIX

1. A process for generating at least one descriptive collision signal describing motor vehicle collisions, comprising the steps of:

deriving a core signal by low-pass filtering a collision signal actually measured;

splitting the core signal into a plurality of chronologically sequential signal segments;

simulating each of the signal segments using a respective transmission function;

combining the transmission functions to form an overall transmission function; and

forming the at least one descriptive collision signal by varying at least one parameter of the overall transmission function.

- 2. The process according to claim 1, wherein the core signal is split into individual pulses.
- 3. The process according to claim 2, further comprising the step of determining the signal segments by comparing the individual pulses with a model pulse, and accepting one of the individual pulses as an individual signal segment when the individual pulse is within preset limits relative to the model pulse, the model pulse being a gaussian pulse, the gaussian pulse being variable through a plurality of parameters.